SAMOILOVA, Z.T.; MENTOVA, V.N.

The effect of hypertension on cholesterolaemia and the reactivity of the vascular system in dogs on a chronic cholesterol regime. Cor vasa 5 no.1:72-79 '63.

1. The Institute of Internal Medicine, Academy of Medical Sciences, Moscow, USSR.

(ARTERIOSCLEROSIS) (METHYLTHIOURACIL) (CHOLESTEROL) (HYPERCHOLESTEROLEMIA) (HYPERTENSION)

CHOJECKA, Barbara; GOLISZEK, Janina; KURZEPA, Stanislaw; LESINSKI, Jan; SAMOJLIK, Eugeniusz

Studies on the level of urinary 5-hydroxyindolacetic acid in women with and without previous psychoprophylactic preparation in labor. Polski tygod. lek. 16 no.11:383-385 13 Mr '61.

1. Z Kliniki Ginekologiczno-Poloznicze j; kierownik: prof. dr J. Lesinski i Zakladu Farmakologii; p.o. kierownik: dr St. Kurzepa, Instytutu Matki i Dziecka; dyrektor: prof. dr F. Groer.

(INDOLACETIC ACID urine) (LABOR urine)

SUMMARY

CHOJECKA, B. Dr., GOLISZEK, J. Dr., KURZEPA, S. Dr., LESINSKI, J. Dr., SAMOJLIK, E. Dr.; Obstetrical and Gynecological Clinic and Department for Pharmacological Research; Institute for Maternity and Infant Care (Szuleszeti es Nogyogyaszati Klinika es Gyogyszerkutatasi Osztaly; Anya es Csecsemovedo Intezet), Warsaw.

"5-Hydroxy-Indole-Acetic Acid Excretion of Maternity Patients Unprepared and Prepared by Psychoprophylactic Methods."

Budapest, Orvosi Hetilap, Vol 103, No 46, 18 Nov 62, pages 2175-2177.

Abstract: [Authors' summary] Psychoprophylactic preparation, by its effect on the central nervous system, resulted in a change in serotonin metabolism. It seemed that the excretion of 5-HIA was proportional to the success of the psychoprophylactic preparation. Post partum, there was no significant difference between the 5-HIA values of the prepared and control patients. Determination of 5-HIA excretion can be used for the evaluation of success of the psychoprophylactic preparation.

[This paper is published, as part of an exchange program, from the Polski Tygodnik Lekarski.]

[2 of the references are Western, 2 Soviet-bloc]

1/1

KURZEPA, Stanislaw; SAMOJLIK, Eugeniusz

Studies on the effect of extracts from plants of the family Rosaceae on gonadotropic and thyrotropic activity in the rat. Endokr. pol. 14 no.2:143-150 '63.

1. Zaklad Farmakologii p.o. Kierownik: dr. St. Kurzepa Instytut Matki i Dziecka w Warszawie Dyrektor: prof. dr G. Gornicki.

(ROSA) (PLANTS) (PHARMACOLOGY) (UTERUS) (OVARY) (GONADOTROPINS, CHORIONIC) (THYROID) (THYROTROPIN) (RESPIRATION) (BLOOD PRESSURE)

KURZEPA, Stanislaw; SAMOJLIK, Eugeniusz

Studies on the effect of some serine derivatives on the fertility and on the course of pregnancy in mice. Ginek. pol. 34 no.2:183-188 '63.

1. Z Zakladu Farmakologii Instytutu Matki i Dziecka Dyrektor: prof. dr B. Gornicki Kierownik: dr S. Kurzepa i z Kliniki Podoznictwa i Chorob Kobiecych Instytutu Matki i Dziecka Kierownik: prof. dr med. J. Lesinski.
(PREGNANCY, ANIMAL) (SERINE)
(FERTILITY) (ANTIMETABOLITES)

SAMOJLIK, Eugeniusz

Examination of the effect of monoamine oxidase (MAO) inhibition on the fertility, fetuses and reproductive organs in rats. I. Effect of MAO inhibitors on the fertility, fetuses, and sexual cycle (1). Endocr. Pol. 16 no.1:69-78 Ja-F'65.

Examination of the effect of monoamine oxidase (MAO) inhibitors on the morphology of the pituitary gland and on the sexual organs in rats. II. Ibid.:79-88.

1. Zaklad Farmakologii (Kierownik: dr. St. Kurzepa); Klinika Ginekologiczno-Poloznicza (Kierownik: prof. dr. J. Lesinski) oraz Instytut Matki i Dziecka (Dyrektor prof. dr. B. Gornicki).

SAMOJLIK, Eugeniusz

Effect of monoamino-oxidase inhibitors on the action of preloban and sexual maturation in rats 3. Endokr. Pol. 16 no.2:195-204 Mr-Ap'65.

1. Zaklad Farmakologii (Kierownik: dr. St. Kurzepa); Klinika Ginekologiczno-Poloznicza (Kierownik: prof. dr. J. Lesinski) oraz Instytut Matki i Dziecka (Dyrektor: prof. dr. B. Gornicki).

SAMOKESHEV, A. P., DANILOV, I. A. and SHLOMA, P. I.

"The System of Observation of Servicemen with a Disrupted Vascular Tonus in Their First Year of Service".

Voyenno Meditsinskiy Zhurnal, No. 4, 1962

MIROPOL'SKAYA, M.A.; MEL'NIK, S.Ya.; FRADKINA, T.S.; SAMOKHALOV, G.I.; PETROV, A.D.

Selective reduction of 6-methyl-3,5-heptadien-2-one by trialkoxy- and trialkylsilane hydrides. Dokl. AN SSSR. 144 no.6:1312-1313 Je '62. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut i Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR.
2. Chlen-korrespondent Akademii nauk SSSR (for Petrov).
(Heptadienone) (Silane)

LOPATIN, G. V.

Released

Ivan Vasil'evich Samoilov; 1899-1963. Izv.Vses.geog.ov-va 96 no. 2:151-152 Mr-Ap '64. (MIRA 17:5)

SAMOKHAT'KO, M.I. (Nikolayev)

The medical school on the eve of the reform. Fel'd i akush. 24 no.8:57-58 Ag '59. (MIRA 12:12)
(MEDICINE--STUDY AND TEACHING)

SAMOKHAVALOVA, V.I.

Individual differences in memorizing various kinds of material.
Vop. psikhol. 8 no.4:99-109 Jl-Ag '62. (MIRA 16:1)

1. Institut psikhologii Akademii pedagogicheskikh nauk RSFSR, Moskva.
(Memory)

SAMOKHIN, A. A.

Samokhin, A. A. - "An Analysis of the Formation and Method of Calculation of the Elements of Spring River Floods in the Forest-Steppe and Steppe Zones of the European Portion of the USSR." Min Higher Education USSR. Leningrad Hydrometeorological Inst. Leningrad, 1956 (Dissertation for the Degree of Candidate in Technical Sciences).

So: Knizhnaya Letopis', No. 10, 1956, pp 116-127

SAMOKHIN, A.A.

SUBJECT: USSR/Geology

10-6-5/13

AUTHOR: Samokhin, A.A.

TITLE: Structural Peculiarities of the Bol'shyye Balkany Massif in the North Caucasus (Strukturnyye osobennosti massiva Bol'shikh Balkan na Severnom Kavkaze)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1957, # 6, pp 81-90 (USSR)

ABSTRACT: The article deals with structural features of a section of the Peredovoy ridge of the North Cuacasus in the middle stream of the Malaya Laba River. This mcuntainous section is characterized by extensive development of various Paleozoic formations. Crystalline foundation rocks, such as metamorphic and crystallineslates, gneisses and magmatic rocks, outcrop in the axial part of the ridge. Most of them are metamorphic deposits of the Lower Paleozoic period, whose metamorphism was related to tectonic phenomena of the Caledonian time.

The author studied the geology of the Bol'shyye Balkany massif, in particular its structural peculiarities and petrotectonic regularities.

Card 1/3

TITLE: Structural Peculiarities of the Bol'shyye Balkany Massif in the North Caucasus (Strukturnyye csobennosti massiva Bol'shikh Balkan na Severnom Kavkaze)

to all directions and especially towards the north-east. The longer axis of the plutonic body formed is directed therefore from south -west to north-east, dipping at an angle of 10°.

The plutonic body has two systems of cracks: one of the prototectonic phase and another of the superimposed genesis. The mineralization and numerous vein formations are associated with the cracks of the prototectonic system.

The article contains 2 maps and 1 geologic cross section.

There are 8 Slavic references.

INSTITUTION: Moskva State University imeni Lomonosov

PRESENTED BY:

SUBMITTED: On 31 January 1957

AVAILABLE: At the Library of Congress

Card 3/3

SAMOKHIN, A.A.

Structure and magmatic properties of the axial zone of Peredovoy Range anticlinorium in the Laba River basin. Nauch. dokl. vys. shkoly; geol.-geog. nauki no.3:129-133 '58. (MIRA 12:1)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra dinamicheskoy geologii.
(Laba Valley--Geology, Structural)

SOV/112-59-2-2640

14(9)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 2, p 52 (USSR)

AUTHOR: Samokhin, A. A.

TITLE: Analysis and Methods for Computing Fundamental Elements of Vernal Floods of the Rivers of the Forest-Steppe and Steppe Zones, the European Part of the USSR (Analiz i metodika rascheta osnovnykh elementov vesennego polovod'ya rek lesostepnoy i stepnoy zon Yevropeyskoy chasti SSSR)

PERIODICAL: Tr. Leningr. gidrometeorol. in-ta, 1958, Nr 7, pp 31-54

ABSTRACT: Forming of the spring flood is analyzed and an improved method is offered for computing the maximum discharge of the rivers of the forest-steppe and steppe zones, the European part of the USSR. Conventional methods for determining vernal flood durations are considered. These durations are either conditional (V. I. Moklyak's and N. D. Antonov's methods) or empirical S. N. Bogolyubov's method). A genetic method is recommended for determining vernal flood duration; the method is based on the duration of water

Card 1/2

SOV/112-59-2-2640

Analysis and Methods for Computing Fundamental Elements of Vernal Floods . . . .

yield and the propagation time of melt waters. The duration of vernal-flood rise and the total vernal flood duration are considered in detail. Formulae and methods for computing the maximum flood discharge (single-phase, intermediate, and volumetric formulae) are analyzed; more precise parameters for the recommended volumetric formula are set. Bibliography: 8 items.

Yu. M. S.

Card 2/2

SAMOKHIN, A.A., kand. tekhn. nauk

Genetic method of calculating the duration of spring high-water periods in rivers of the forest-steppe and steppe zones of the European part of the U.S.S.R. for maximum flood years. Trudy OGMI no.15:165-173 '58. (MIRA 12:7)

1. Leningradskiy gidrometeorologicheskiy institut.
(Floods)

SAMOKHIN, A. A.: Master Geolog-Mineralog Sci (diss) -- "The geology of the metamorphic complex of the zone of the front range in the basin of the Laba River (northwest Caucasus)". Moscow, 1959. 22 pp (Min Higher Educ USSR, Moscow State U im M. V. Lomonosov, Geological Faculty, Chair of Dynamic Geology), 150 copies (KL, No 16, 1959, 107)

GALAKTIONOV, I. I.; GEORGIYEVSKIY, Yu. M.; SAMOKHIN, A. A.

Study of the maximum runoff of small Far Eastern rivers.
Trudy Len. gidromet. inst. no.11:198-207 '61.
(MIRA 16:1)

(Soviet Far East—Runoff)

SAMOKHIN, A.A.

Composition and structure of the metamorphic basement in the region of the main range in the western Caucasus. Izv. AN SSSR. Ser.geol. 28 no.4:52-66 Ap '63. (MIRA 16:6)

1. Kavkazskaya ekspeditsiya Moskovskogo gosudarstvennogo universiteta.
(Caucasus—Geology)

L 58537-65 EWT(1) IJP(c)

ACCESSION NR: AP5012531 UR/0181/65/007/005/1289/1293

10
9
0

AUTHOR: Provotorov, B. N.; Samokhin, A. A.

TITLE: Spin absorption in weak magnetic fields 21

SOURCE: Fizika tverdogo tela, v. 7, no. 5, 1965, 1289-1293

TOPIC TAGS: spin absorption, density matrix, spin lattice relaxation, spin spin relaxation

ABSTRACT: The purpose of the investigation was to derive expressions for spin absorption from a rigorous equation for the density matrix of a spin system. This is done by analyzing the behavior of the spin system with the aid of the equation for the density matrix, in a weak constant magnetic field (of the order of the local field), parallel to which an alternating field is applied. The expressions derived in this manner for the dispersion and for the absorption are valid for alternating-field frequencies which do not exceed the reciprocal of the spin-spin relaxation time. These expressions contain the dependence on the amplitude of the alternating field at high frequencies. The results show that spin absorption can

Card 1/2

L 58537-65

ACCESSION NR: AP5012531

be noticeably decreased at certain frequencies by saturation, as was observed, for example, in the case of $CuSO_4 \cdot 5H_2O$ at 78 Mcs (C.J. Gorter, Paramagnetic Relaxation, Elsevier, N.Y., 1947). The results are applicable also in the presence of electric splitting of the levels of the spin system. Orig. art. has: 26 formulas.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR, Moscow (Institute of Chemical Physics, AN SSSR)

SUBMITTED: 02Jul64 ENCL: 00 SUB CODE: SS, NP

NR REF SOV: 003 OTHER: 005

Card 2/2

SAMOKHIN, A.I.

Modulation of nuclear magnetic resonance signals under conditions of strong saturation. Fiz. tver. tela 7 no.10:2898-2901 O '65. (MIRA 18:11)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

L 26636-66 EWT(1) IJP(c) WW/GG

ACC NR: AP5025361 SOURCE CODE: UR/0181/65/007/010/2898/2901

AUTHOR: Samokhin, A. A.

ORG: Institute of Chemical Physics, AN SSSR, Moscow (Institut khimicheskoy fiziki AN SSSR)

TITLE: Modulation of NMR (nuclear magnetic resonance) signal in strong saturation conditions

SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 2898-2901

TOPIC TAGS: nuclear magnetic resonance, signal modulation, Zeeman effect, spin system, magnetic dipole, constant magnetic field, dipole interaction, spin lattice relaxion

ABSTRACT: The magnetic dipole-dipole interaction of nuclear spins can lead to the establishment of statistical equilibrium within the spin system. If the external constant magnetic field H_0 does not exceed the local field H_1 by an order of magnitude, then the equilibrium between the Zeeman and dipole section of the spin-system is quickly established in comparison with the spin-lattice relaxation time which makes it possible to characterize the behavior of the spin-system by one temperature. With $H_0 \gg H_1$, as it takes place in NMR, the energy exchange between the Zeeman and dipole sections is greatly inhibited and it may be considered that

Card 1/2

Card 2/2

SAMOKHIN, A.F.

The Nevinnomyssk water supply canal. Geog. v shkole no.4: 64-65 Jl-Ag '47. (MLRA 9:6)
(Nevinnomyssk Canal)

SAMOKHIN, A.F.

SAMOKHIN, A.F. Don i ego pritoki. Rostov-na-Donu. Rostizdat, 1948. 77 p.

SO: LC, Soviet Geography, Part I, 1951, Uncl.

SAMOKHIN, A. F.

Samokhin, A. F. - "An attempt at classification of surfacr outlets of subterranean waters," Uchen. zapiski (Rost. n/D gos. un-t im. Molotova), Vol. XIII, 1948, p. 63- 80

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

SAMOKHIN, A. F.

Samokhin, A. F. - "Organization of the Northern Caucasus Division of the Geographical Society USSR," Uchen. zapiski (Rost. n/D gos. un-t im. Molotova), Vol. XIII, 1948, p. 101-104

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

SAMOKHIN, A.F., dotsent, kand.tekhn.nauk; SAMARTSEV, L.G., red.; POPOVA, N.A., tekhn.red.

[The river Don and its tributaries; popular science essay] Reka Don i ee pritoki; nauchno-populiarnyi ocherk. Rostov-na-Donu. Izd-vo Rostovskogo univ., 1958. 117 p. (MIRA 12:8)
(Don River)

L 12232-63 EWT(d)/FCC(w)/BDS ASD/APGC Pg-4/Pk-4/Po-4/Pq-4 GG/IJP(C)

S/271/63/000/004/038/045

AUTHOR: Samokhin, A. F. and Shevelev, P. N.

TITLE: An experimental study of input and output converters in computers

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 4, 1963, 38, abstract 4B214 (Tr. Rizhsk. in-ta inzh. grazhd. vozd. flota, 1961, no. 6, 35-41)

TEXT: The authors describe an experiment in which the accuracy of two converters was tested simultaneously: a fantastron volts-to-code converter and a code-to-volts converter. For the test, input voltage and output voltage were measured by an oscillograph and the difference noted (for the code converter). Input voltage was directed to the fantastron converter and the code obtained passed to the code-to-volts converter. As a result the deviations could be caused by the inaccuracy of either the one or the other converter. This experiment allows one to determine the errors introduced by converters working jointly, by use of a model and a digital computer. As input voltage, sinusoidal and linear-varying signals from a NGPK-2 generator were used; a potentiometer served to set up voltage of arbitrary form. Auxiliary circuits used in the experiment are described. The results of the experiment are illustrated in oscillograms, which allow one to make qualitative (only)

Card 1/2

L 12232-63 EWT(d)/FCC(w)/BDS ASD/APGC Pg-4/Pk-4/Po-4/Pq-4 GG/IJP(C)

S/271/63/000/004/038/045

AUTHOR: Samokhin, A. F. and Shevelev, P. N.

TITLE: An experimental study of input and output converters in computers

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 4, 1963, 38, abstract 4B214 (Tr. Rizhsk. in-ta inzh. grazhd. vozd. flota, 1961, no. 6, 35-41)

TEXT: The authors describe an experiment in which the accuracy of two converters was tested simultaneously: a fantastron volts-to-code converter and a code-to-volts converter. For the test, input voltage and output voltage were measured by an oscillograph and the difference noted (for the code converter). Input voltage was directed to the fantastron converter and the code obtained passed to the code-to-volts converter. As a result the deviations could be caused by the inaccuracy of either the one or the other converter. This experiment allows one to determine the errors introduced by converters working jointly, by use of a model and a digital computer. As input voltage, sinusoidal and linear-varying signals from a NGPK-2 generator were used; a potentiometer served to set up voltage of arbitrary form. Auxiliary circuits used in the experiment are described. The results of the experiment are illustrated in oscillograms, which allow one to make qualitative (only)

Card 1/2

L 12232-63

S/271/63/000/004/038/045

An experimental study ....

evaluations. There are six illustrations. E. G.

[Abstracter's note: Complete translation]

Card 2/2

GUSEV, Nikita Vasil'yevich; SAMOKHIN, Aleksey Grigor'yevich

Nikolai Aleksandrovich Semashko. Lipetsk, Lipetskoe knizhnoe izd-vo, 1960. 25 p. (MIRA 13:12)
(SEMASHKO, NIKOLAI ALEKSANDROVICH, 1874-1949)

SAMOKHIN, A. P.

Don River

Present location of the source of the Don River. Izv. Vses. geog. obshch., 84, No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952, UNCL.

SAMOKHIN, F.

Drilling rate of 3178 meters per month. Neftianik 2 no.1:9-11 Ja '57. (MLRA 10:2)

(Oil well drilling)

SAMOKHIN, Fedor Ivanovich, inzh.; LEVIKOV, Abram Mendeleyevich, inzh.; MAVRITSYN, Aleksandr Mikhaylovich, inzh.; Prinimal uchastiye SNESHKO, Ye.I., inzh.; FOTIYEV, M.M., otv. red.; BELOV, V.S., red. izd-va; PROZOROVSKAYA, V.L., tekhn. red.; MINSKER, L.I., tekhn.red.

[Electrical engineering in mining]Gornaia elektrotekhnika. Moskva, Gosgortekhizdat, 1962. 379 p. (MIRA 15:12)
(Electricity in mining)

SHAPIRO, I.S., kand.tekhn.nauk; BENDER, B.D., [illegible]; VLADIMIROV, V.B., inzh.; RING, I.L., inzh.; SAMOKHIN, G.G., tekhn.

Preparation of edges on stainless steel for welding, by air-arc cutting. Svar.proizv. no.5:22-24 My '65. (MIRA 18:6)

SAMOKHIN, G.I.

Current-supply sources for electric-pulse machines. Nauch.zap.Od. politekh.inst. 26:59-64 '60. (MIRA 15:5)
(Electric cutting machinery)

S/123/62/000/003/010/018
A004/A101

AUTHOR: Samokhin, G. I.

TITLE: Calorimetric method of determining the energy in electropulse machining

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 3, 1962, 39, abstract 3B198 ("Nauchn. zap. Odessk. politekhn. in-t", 1959, v. 16, 178-181)

TEXT: The pulse nature of the current flow in the operating circuit of electrospark installations and the instability of the process leading to considerable fluctuations of the electric conditions do not allow in some cases to carry out measurements with conventional electrical instruments. The author describes a calorimetric method of measuring the electrical process parameters, in which an ohmic resistor connected to the circuit being measured is used as a heating element. The calorimeter is made of a Dewar vessel filled with water in which the heater and a thermometer are immersed. 3 calorimeters are used for measuring the power and energy evolved in the discharge gap. One of the energy measuring versions is similar to the method of power measuring with three voltmeters. The heaters are connected in parallel with the generator, ballast

Card 1/2

Calorimetric method of determining ...

resistor and discharge gap. To determine the energy evolved in the discharge gap, the sum of the readings of the second and third calorimeters is subtracted from the readings of the first. For rough machining conditions, when the ballast resistance is low, the energy is measured by connecting the heaters according to the circuit of three ammeters. There are 2 figures.

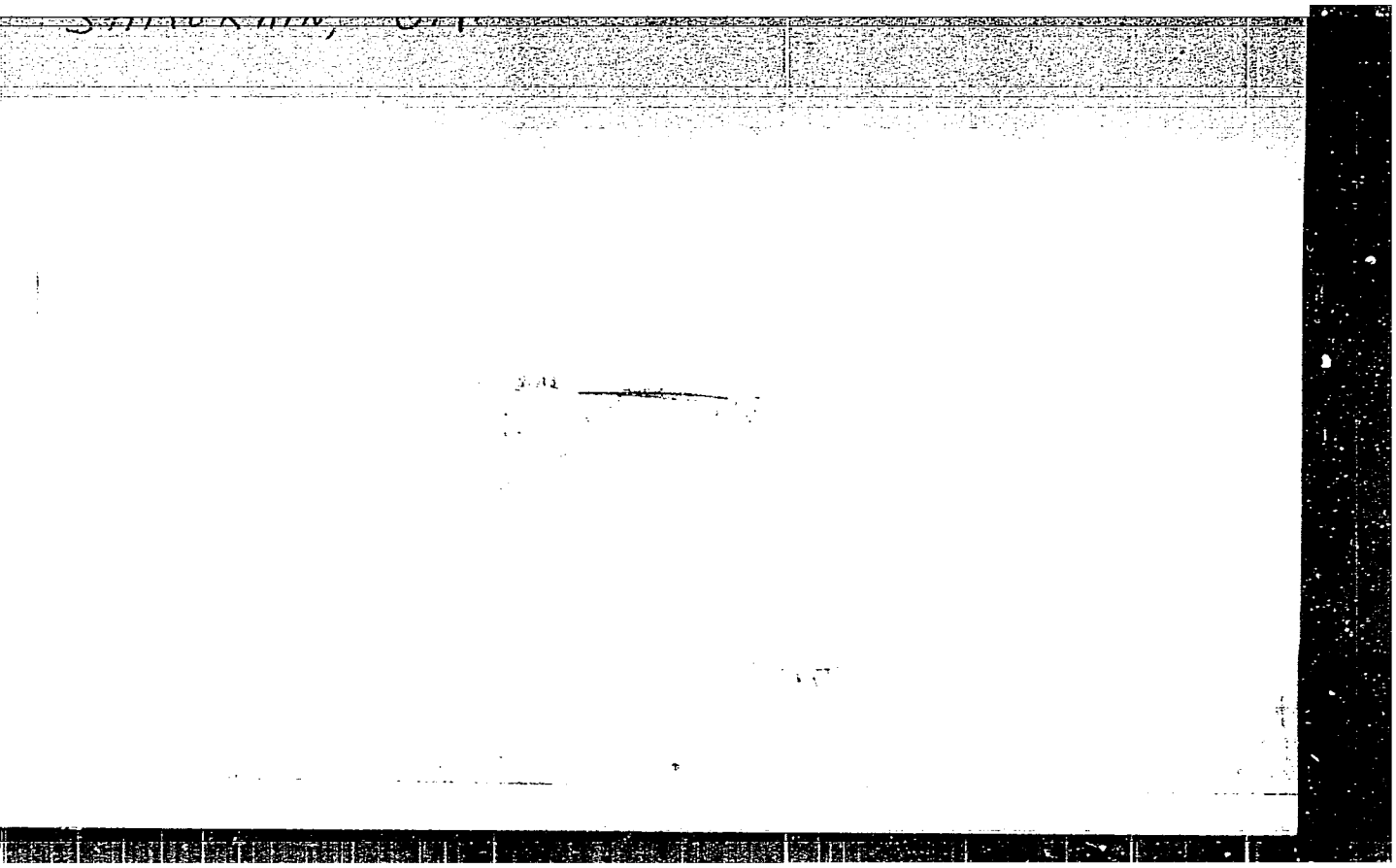
S. K. Kruglova

[Abstracter's note: Complete translation]

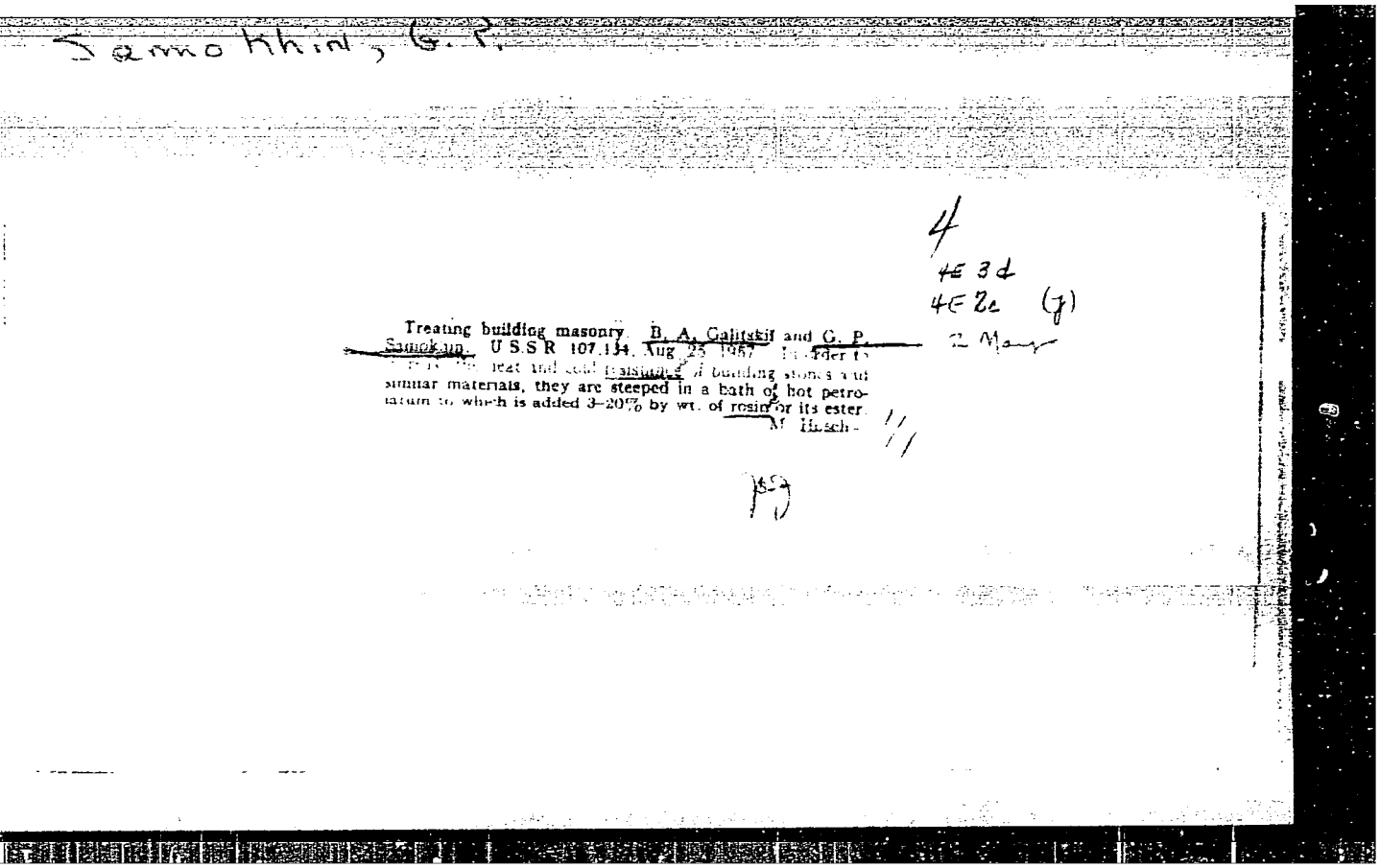
Card 2/2

RODIN, Petr Rodionovich; BODZICH, M.I., dots., retsenzent;
AFANAS'YEV, V.F., dots., kand. tekhn. nauk, retsenzent
SAMOKHIN, G.I., otv. red.; CHISTYAKOVA, L.G., inzh.,
red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Design and manufacture of metal-cutting tools] Proektirovanie
i proizvodstvo rezhushchego instrumenta. Moskva, Mashgiz,
1962. 254 p. (MIRA 15:4)
(Metal-cutting tools)



APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446930001-3"



Samokhin, G. P.

4
4E 3d
4E 2c (J)
2 Mar

Treating building masonry. B. A. Galitskii and G. P. Samokhin. U.S.S.R. 107,134, Aug. 25, 1957. In order to [illegible] heat and soil resistance of building stones and similar materials, they are steeped in a bath of hot petrolatum to which is added 3–20% by wt. of rosin or its ester. M. Hirsch.

NIKITIN, A.A., inzh.; GALITSKIY, B.A.; KOGAN, A.B.; SAMOKHIN, G.P.

Programmed control of the steaming process in autoclaves.
Sbor. trud. ROSNIIMS no.17:39-54 '60. (MIRA 14:12)
(Automatic control)
(Autoclaves)

FEDOROV, A.F.; SAMOKHIN, G.V.

Gamma field intensity above the sea surface. Dokl. AN SSSR 143 no.1:101-103 Mr '62. (MIRA 15:2)

1. Predstavleno akademikom Ye.N.Pavlovskim.
(Gamma rays)

PA 236T44

SAMOKHIN, I.

USSR/Electronics - Television Sep 52
Long-Distance Reception

"Television Programs Are Seen in Ivanovo," I. Samokhin

"Radio" No 9, pp 39-41

Describes experiments by radio amateurs in receiving the sound accompaniment and television picture of the Moscow Television Center in Ivanovo (255 km from Moscow). Better results were obtained with a Leningrad T-2 receiver than with a KVN-49 receiver. Relay station is needed for stable reception; Ivanovo club is now selecting site for such a station and planning it.

236T44

236T44

ACC NR: AP6022003 SOURCE CODE: UR/0120/66/000/003/0098/0101

AUTHOR: Yegorov, A. A.; Samokhin, I. A.; Panasyuk, V. S.; Yudin, L. I.

ORG: Nuclear Physics Institute, SO AN SSSR, Novosibirsk (Institut yadernoy fiziki SO AN SSSR)

TITLE: Synchronization of triggering pulses with a given high frequency voltage phase

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1966, 98-101

TOPIC TAGS: electronic circuit, triggering circuit, particle accelerator

ABSTRACT: A circuit, based on a tube type limiter, is described. It is designed for synchronizing triggering pulses with a given phase of the hf sinusoidal voltage with an accuracy of ~1 nsec when the input voltage is varied from 70 to 200 V and when the line voltage is varied within ± 10%. The circuit consists of a section for fixing the hf voltage phase; a cascade for shaping phased pulses which, after amplification, trigger the output sections; and continuously varible delay lines. By means of special gate pulses the output pulses of the circuit can be coupled to any section of the hf voltage, either pulsed or continuous, at a frequency up to 100 Mc. The circuit can be used in various particle recording systems, in oscillography for the visual observation of individual sections of the hf voltage curve, and it can be incorporated in acceleretor circuits. At present this synchronizing device with five output delay channels is used for triggering control and recording equipment of the

Card 1/2 UDC: 539.1.075

ACC NR: AP6022003

B-3M iron-free electron synchrotron. Orig. art. has: 3 figures.

SUB CODE: 09, 20/ SUBM DATE: 30Apr65/ ORIG REF: 002

Card 2/2

L 00061-66 EWT(1)/EWA(h)

ACCESSION NR: AP5021341 UR/0120/65/000/004/0115/0120
621.385.049.7

AUTHOR: Yegorov, A. A.; Samokhin, I. A.; Yudin, L. I.

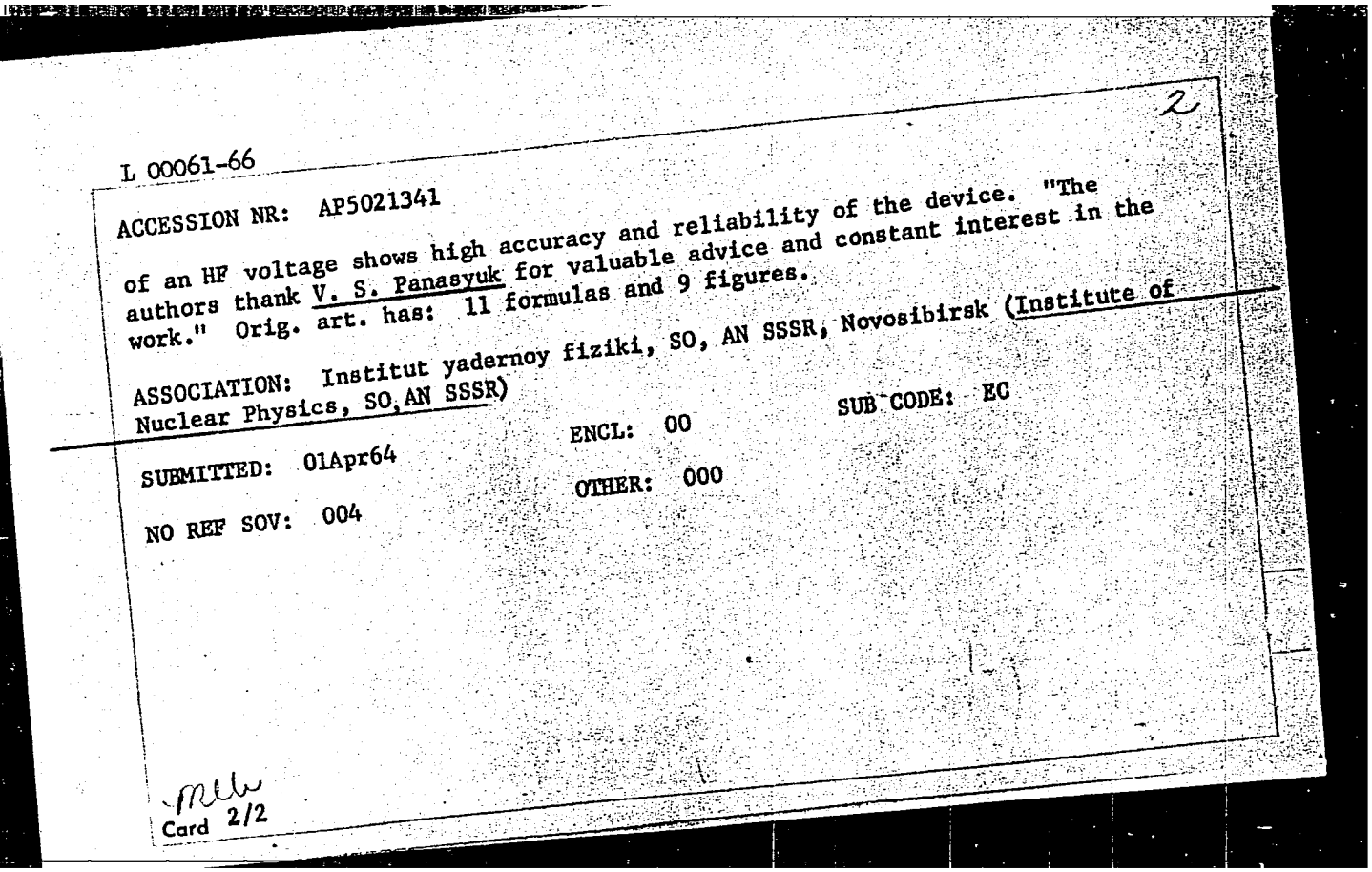
TITLE: Tube limiter with secondary emission

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 115-120

TOPIC TAGS: secondary emission, electron tube, video recorder, nanosecond pulse, pulse phase modulation

ABSTRACT: Soviet 6V1P, 6V2P, and 6V3S tubes with secondary emission have grid-anode characteristics making them adequate for limiter-type operation. Among them the 6V3S tube has the steepest slope and the present authors used this tube during their studies of video and radio signal limiters. The article presents a general introduction and the results of amplitude and phase characteristics investigations. Large output currents of the 6V3S tube allow high output voltages of the order of dozens of volts across low 10-50 ohm resistances. Such limiters can then be used at frequencies in the hundreds of Mc range since the quality of the limiter operation depends only slightly on the resistance of the load. The tests of this limiter in the nanosecond phase fixation circuit

Card 1/2



L 00061-66

ACCESSION NR: AP5021341

2

of an HF voltage shows high accuracy and reliability of the device. "The authors thank V. S. Panasyuk for valuable advice and constant interest in the work." Orig. art. has: 11 formulas and 9 figures.

ASSOCIATION: Institut yadernoy fiziki, SO, AN SSSR, Novosibirsk (Institute of Nuclear Physics, SO, AN SSSR)

SUBMITTED: 01Apr64 ENCL: 00 SUB CODE: EC

NO REF SOV: 004 OTHER: 000

Card 2/2

SOSEDOV, V.P.; SAMOKHIN, I.N.; NEMIROVSKIY, E.E.

Calcining blocks of cold compacted finely granulated graphite. TSvet. met. 35 no.7:54-60 Jl '62. (MIRA 15:11)
(Graphite)

SAMOKHIN, I. P.

180T52

USSR/Engineering - Laboratories Nov 50

"Planning the Plant Laboratories in the Automobile and Tractor Industry," I. P. Samokhin, S. T. Shevakhin, Giproavtotraktoroprom

"Zavod Lab" No 11, pp 1387-1392

Outlines basis for planning with consideration of such factors as estd flow of raw materials, productive capacity of plant, personnel, mean norms of time required for various tests, amt of basic equipment and others. Gives example of layout for lab in large plant and some suggestions for improvements in work of Soviet planning orgn.

180T52

SAMOKHIN, I. P.

Yerokhin, A. P., Mechanization and automatization in heat-treatment departments. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1953. 376 (i.e. 307) p. (54-15747)

TS213.E7

SAMOKHIN, I. P.

"General Trends of the Mechanization of Technological Processes of Heat Treatment," pp 336/349 in Modern Methods of Heat Treating Steel by Dom Inzhenera i Tekhnika imeni F E Dzerzhinskovo. Gosudarstvennoye Nauchno-Tekhnicheskoye Izdatel'-stvo Mashinostroitel'noy Literatury, Moscow (1954) 404 pp.

Evaluation B-86350, 30 Jun 55

SAMOKHIN, I.P.

Mandrels with chip pits. Mashinostroitel' no.6:34 Je '57.
(MIRA 10:7)

(Lathes--Attachments)

SAMOKHIN

GOLOD, A.S., inzhener.; SAMOKHIN, M.I., inzhener.

Introduction of advanced technilogical processes at the plants of the Ministry of Machinery Construction and Precision Instrument Manufacture. Proizv.-tekh.inform. no.2:3-9 '51. (MLRA 10:3)

1. Tekhnicheskiy otdel Ministerstva mashinostroyeniya i priborostroyeniya SSSR.
(Efficiency, Industrial)

SAMOKHIN, M.S., inzh.; TARNAVSKIY, I.L., inzh.

Experience in the operation of ash collectors at lowered gas temperatures. Teploenergetika 7 no.6:45-47 Je '60.
(MIRA 13:8)

1. Institut po proyektirovaniyu gazoochistnykh sooruzheniy.
(Electric power plants)

41322
S/057/62/032/009/005/014
B163/B186

24.2120

AUTHOR: Samokhin, M. V.

TITLE: Determination of the transport coefficients in a plasma using Grad's method

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 9, 1962, 1055-1062

TEXT: The linearized Fokker-Planck-equation for the distribution function of electrons in a plasma with one type of resting ions is solved by an application of Grad's method of expanding the distribution function into a series of multi-dimensional Hermite polynomials (Pure Appl. Math., 2, 331, (1949)). It is assumed that the ion and electron temperatures are nearly equal, that the pressure is constant and that the electric field strength and temperature gradient are small. The calculation of the transport coefficients describing the linear dependence

$$\mathbf{j}=\gamma_{E1}\sigma\mathbf{E}+\gamma_{E2}\sigma\frac{[\omega,\mathbf{E}]}{\omega}+\gamma_{E3}\sigma\frac{\omega(\omega,\mathbf{E})}{\omega^2}+ \\ +\gamma_{T1}\alpha\nabla T+\gamma_{T2}\alpha\frac{[\omega,\nabla T]}{\omega}+\gamma_{T3}\alpha\frac{\omega(\omega,\nabla T)}{\omega^2}, \qquad (2.5)$$

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Determination of the transport...

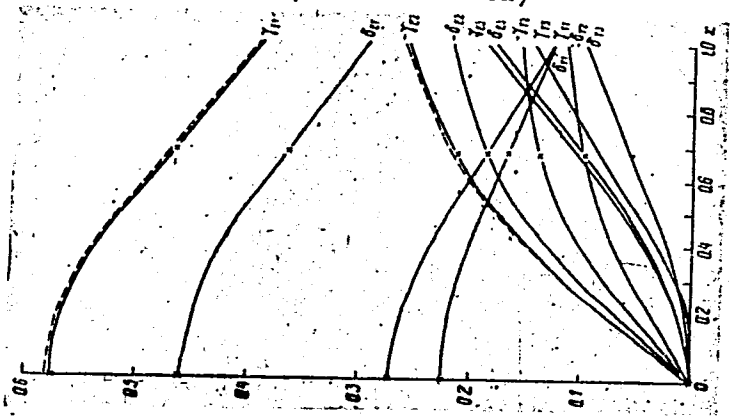
$$\mathbf{Q} = -\delta_{q1}\beta\mathbf{E} - \delta_{q2}\beta\frac{[\omega, \mathbf{E}]}{\omega} - \delta_{q3}\beta\frac{\omega(\omega, \mathbf{E})}{\omega^2} - \\ -\delta_{T1}K\nabla T - \delta_{T2}K\frac{[\omega, \nabla T]}{\omega} - \delta_{T3}K\frac{\omega(\omega, \nabla T)}{\omega^2}, \qquad (2.5)$$

of electric current $\vec{j}$ and heat flow $\vec{Q}$ on electric field strength $\vec{E}$ and temperature gradient ∇T is reduced to determining the roots of an infinite system of linear equations which is approximated by a finite system of n equations. The dependence of the 12 transport coefficients on magnetic field strength is calculated for the approximations n=1, n=2. A comparison of calculated corrections is made for the case that the ion charge is Z=1 with Kaneko's results (J. Phys. Soc. Japan, 15, 1685 (1960)) reached by using an approximation by Sonine polynomials. If the same number of polynomials is used, the accuracy of both methods is of the same order. The limits of applicability of the linearized Fokker-Planck-equation are discussed. It is applicable if 1) eE is small compared with the "friction force" acting on the electron when it moves between the resting ions with thermal velocities, 2) the temperature does not change appreciably over a distance equal to the mean free electron path. The figure shows the 12 transport coefficients as functions of $\omega\tau$ where $\omega = eB/M$, and τ is the

Card 2/3

average time between two consecutive impacts of an electron with ions. The crosses denote values from a Sonine polynomial approximation with three members, and the dotted lines values from a Sonine polynomial approximation with six members. There are 1 figure and 3 tables.

SUBMITTED: July 26, 1961 (initially)
December 19, 1961 (after revision)



L 12911-63 EWT(1)/EWG(k)/BDS/EEC(b)-2/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/
SSD Pz-4/Pab-4/Pi-4/Po-4 AT/IJP(C)
ACCESSION NR: AP3001326 S/0057/63/033/006/0675/0685

78

AUTHOR: Samokhin, M. V.

TITLE: Particle and heat fluxes in a multicomponent plasma 21

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 33, no. 6, 1963, 675-685

TOPIC TAGS: diffusion in plasmas, heat conductivity in plasmas, multicomponent plasmas

ABSTRACT: The author has previously calculated the transfer coefficients for particle and heat fluxes in a two-component two-temperature plasma in a magnetic field by expanding the distribution functions in series of Hermite polynomials and using the kinetic equation with Fokker-Planck terms. (M.V. Samokhin, ZhTF, 33, 675, 1963 - see Abstract ACC NR AP3001325). In the present paper these calculations are generalized to a multi-component plasma in which the ionic temperatures are all equal but may differ from the electron temperature. The calculations are very similar to those of the earlier paper, to which reference is continually made. As an example, the author considers a three-component plasma consisting of deuterium and tritium ions and electrons, in which the particle densities of the two ions are equal and the electron temperature is equal to the ion temperature. As in the

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L 12911-63

ACCESSION NR: AP3001326

previous paper, the results are given in the form of correction factors to the various terms in the transfer equation for the corresponding Lorentz plasma (plasma with stationary ions). The numerical values of these correction factors are given for the deuterium-tritium plasma and the results are compared with those for a two-component one-temperature deuterium plasma of equal ion density. The ion currents due to the electric field and the pressure gradient are just half the corresponding current in the two-component plasma, for the particle density of each ion is just half the ion density in the two-component case. The ion currents due to temperature gradient, however, are considerably different in the two cases; in the three-component plasma the thermal diffusion of deuterium and tritium take place in opposite directions, and the mean ionic thermal diffusion velocity is accordingly reduced by a large factor (about 34) compared with the two-component plasma. The heat flux carried by deuterium ions in the three-component plasma is slightly less than half that carried by the ions in the two-component plasma and that carried by the tritium is slightly more than half. Orig. art. has: 53 formulas and 3 tables.

ASSOCIATION: none

SUBMITTED: 07May62 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 007 OTHER: 004

Card 2/2

L 12909-63 EWT(1)/EWG(k)/BDS/EEC(b)-2/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/
SSD Pz-4/Pi-4/Po-4/Pab-4 AT/IJP(C)
ACCESSION NR: AP3001325 S/0057/63/033/006/0667/0674 79 78

AUTHOR: Samokhin, M. V.

TITLE: Currents and heat fluxes in a two-temperature plasma 21

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 33, no. 6, 1963, 667-674

TOPIC TAGS: plasma, diffusion in plasmas, heat conductivity in plasmas

ABSTRACT: The transfer coefficients expressing the particle and heat fluxes as linear functions of the electric field and the pressure and temperature gradients are calculated for a two component plasma in a strong magnetic field for the case in which the ion and electron temperatures may differ. The calculations are valid for arbitrary values of the product of the electron Larmor frequency and the time between electron-ion collisions, and for a plasma moving transversely to the magnetic field. It is considered important to take transverse motion of the plasma into account because of the development of ionic Hall currents. The velocity and pressure gradient parallel to the magnetic field are assumed to vanish, and the ion thermal velocities are assumed to be small compared with the electron thermal velocities. The calculation is based on the kinetic equation with the collisions described by Fokker-Planck terms. The distribution functions are expanded in an infinite series of Hermite polynomials and the kinetic equation, with powers and

Card 1/82

products of the electric field, the pressure and temperature gradients, and the ratio of ionic to electronic thermal velocities neglected, is transformed into an infinite set of algebraic equations among the expansion coefficients. The particle and heat fluxes are expressed in terms of the expansion coefficients (they involve only a finite number of them), and the transfer coefficients are to be obtained by eliminating the expansion coefficients by means of the transformed kinetic equation. In principle the elimination can be performed to any required accuracy by retaining only a finite number of expansion coefficients in the kinetic equation. To facilitate elimination of the expansion coefficients, the transfer equation is written in the form of the known transfer equation for a Lorentz plasma (plasma with stationary ions) with a correction factor for each term, and the equations that must be solved to calculate the correction factors are collected into tables. The correction factors themselves are given for the case in which the expansion involves no Hermite polynomials of degree greater than the third. This is said to correspond to the "approximation of thirteenth moments." For equal ion and electron temperatures, the results of this approximation agree with results obtained by S.I. Braginskiy, by I. E. Tamm, and by E.S. Fradkin (S.I. Braginskiy, Fizika plazmy*, Vol. 1, 178, Izd. AN SSSR, 1958,; E.S. Fradkin, ZhETF, 32, 1176, 1957; I. E. Tamm, Fizika plazmy*, Vol. 1, 3, Izd. AN SSSR, 1958.) When the electron and ion temperatures differ, terms proportional to the temperature difference appear in the ionic heat flow.

SAMOKHIN, M.V.

Calculating the transfer coefficients in a two-temperature plasma. Zhur.tekh.fiz. 34 no. 2:369-371 F '64. (MIRA 17:6)

ACCESSION NR: AP4022954 S/0020/64/155/001/0072/0074

AUTHOR: Samokhin, M. V.

TITLE: Distribution of electric and magnetic fields in a rotating plasma in a state of thermodynamic equilibrium

SOURCE: AN SSSR. Doklady*, v. 155, no. 1, 1964, 72-74

TOPIC TAGS: plasma, thermodynamic equilibrium, rotating plasma, plasma electric field, plasma magnetic field, plasma electric field, magnetic field

ABSTRACT: The motion of neutral gas in a state of thermodynamic equilibrium consists of a translational motion and a rotation about a fixed axis. In a gas composed of charged particles, the charges separate because of the rotation and because of their own electric and magnetic fields. The author considers the case when the generalized potential is small in comparison with the temperature in a plasma which consists of electrons and singly-charged ions rotating in a cylinder. When the total charge per unit length is zero, the electric field at the cylinder axis is zero, the magnetic field has a finite value. Both are zero at the cylinder boundary. The separation of charges at the cylinder center depends on the angular

Card 1/2

ACCESSION NR: AP4022954

frequency and on the cylinder radius. Orig. art. has: 1 figure, 9 equations

ASSOCIATION: Akademiya nauk SSSR (Academy of Sciences SSSR)

SUBMITTED: 27Nov63 DATE ACQ: 08Apr64 ENCL: 00

SUB CODE: PH NO REF SOV: 000 OTHER: 002

Card 2/2

L 60160-65 EPF(n)-2/EPA(w)-2/EWT(1)/EWG(m) Pi-4/Po-4/Pz-6 LJP(c) AT/WW
ACCESSION NR: AP5014502 UR/0141/65/008/002/0251/0259
533.95:538.4

47
B

AUTHOR: Samokhin, M. V.

TITLE: Radiation of extraordinary wave from current in a layer of magnetoactive plasma 21

SOURCE: IVUZ. Radiofizika, v. 8, no. 2, 1965, 251-259

TOPIC TAGS: magnetoactive plasma, current carrying plasma, extraordinary wave, plasma radiation, electron density, transmission coefficient, reflection coefficient

ABSTRACT: The author calculates the radiation from a plane layer of magnetoactive current-carrying plasma. It is assumed that the magnetic field is perpendicular to the boundaries of the layer and that the variations of the magnetic field and of the density are small. By obtaining an asymptotic solution for the wave equation it is shown that the refractive index of the extraordinary wave has a pole at the point where the radiation frequency coincides with the gyrofrequency of the electrons, and that the wave equation reduces to an inhomogeneous confluent hypergeometric equation, for which a solution and its asymptotic expansion are found. A plot is presented of the distribution of the electric and magnetic fields in the layer. A method of determining the electron density in such a layer from the re-

Card 1/2

L 60160-65

ACCESSION NR: AP5014502

flection or transmission coefficient of the extraordinary wave is presented. Orig. art. has: 6 figures and 15 formulas.

ASSOCIATION: none

SUBMITTED: 10Dec63	ENCL: 00	SUB CODE: ME, EM
NR REF SOV: 003	OTHER: 003	

Card 2/2

SAMOKHIN, M.V.

Emission of an extraordinary wave by the current carrying layer of a magnetoactive plasma. Izv. vys. ucheb. zav.; radiofiz. 8 no.2:251-259 '65. (MIRA 18:6)

L 8995-66 EWT(d)/EWT(1)/ETC/EPF(n)-2/EWG(m)/EWA(m)-2 IJP(c) AT

ACC NR: AP5027263 SOURCE CODE: UR/0207/65/000/005/0003/0008

AUTHORS: Muratov, R. Z. (Moscow); Samokhin, M. V. (Moscow)

ORG: none

TITLE: Plasma oscillations with an electron beam in an external electric field

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1965, 3-8

TOPIC TAGS: electron beam, unstable plasma, plasma dynamics, electric field, Poisson equation, asymptotic solution, integral equation

ABSTRACT: This work treats the problem of the penetration of an external electric field into a semi-infinite plasma with an electron beam having drift velocity so small relative to the main plasma that no instability develops. The problem is thus a generalization of that considered by L. D. Landau (O kolebaniyakh elektronnoy plazmy. Zh. Eksper. i Teor. Fiz., 1946, vol. 16, No. 7, p. 574), but may be viewed also as a boundary value problem of a weakly modulated beam interacting with a plasma. Following Landau, the problem is treated by linearization of the Vlasov-Poisson equations, from which is derived an integral equation for the linearized electric field E_1. This is solved asymptotically, and the results are compared with those of Landau. The authors are grateful to M. L. Levin for useful discussions. Orig. art. has: 1 figure and 36 formulas.

Card 1/1

L 3235-66 EWT(1)/FCC GS/GW

ACCESSION NR: AT5023622 UR/0000/65/000/000/0466/0467

AUTHOR: Samokhin, M. V.

TITLE: Interaction of solar wind with the geomagnetic field

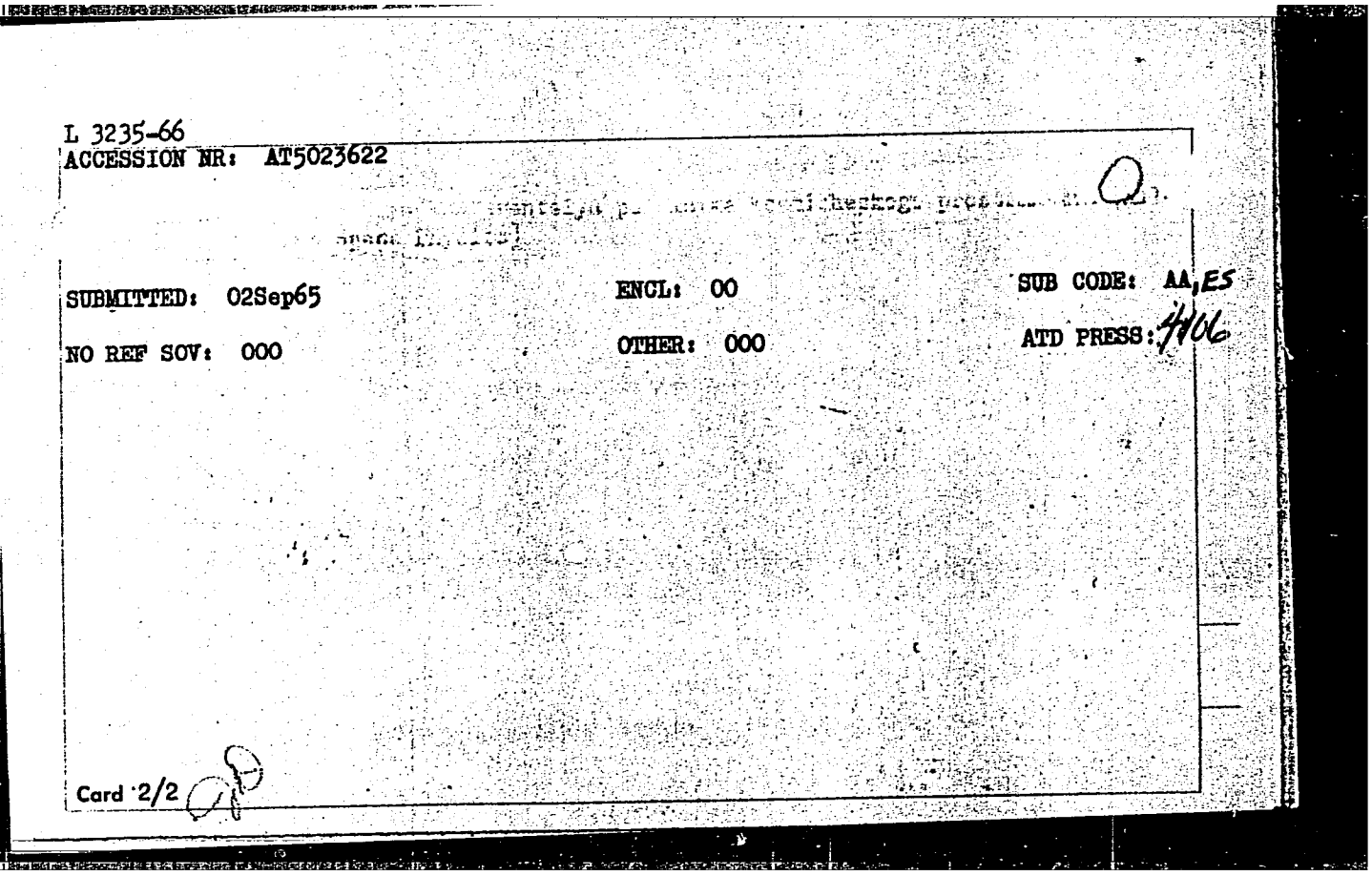
SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 466-467

TOPIC TAGS: geomagnetism, solar activity, magnetic activity, magnetosphere, shock wave, satellite, rocket, satellite data analysis

ABSTRACT: This is a survey of Soviet and foreign theoretical investigations dealing with the form of the magnetosphere boundary, the turbulent transition layer, and the shock wave formed in supersonic overflowing of the geomagnetic void. A list of satellites and rockets used for obtaining the pertiment data is mentioned. Methods employed in determining the form of the magnetosphere and the model used in studying the shock wave are briefly explained. It is noted that the results of measurements and of calculations are in satisfactory agreement for the sunward side of the magnetosphere. [04]

ASSOCIATION: none

Card 1/2



L 3235-66
ACCESSION NR: AT5023622

SUBMITTED: 02Sep65 ENCL: 00 SUB CODE: AA,ES

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4106

Card 2/2

L 06222-67 EWT(1)/ECC GW

ACC NR: AP6028356 SOURCE CODE: UR/0203/66/006/004/0754/0761

67
64
B

AUTHOR: Samokhin, M. V.

ORG: Radio Engineering Institute AN SSSR (Radiotekhnicheskiy institut AN SSSR)

TITLE: Theory of the resonance probe

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 4, 1966, 754-761

TOPIC TAGS: plasma probe, hf component, distribution function, Maxwell distribution, Bessel function, boundary value problem, electron plasma, analytic function, plasma resonance

ABSTRACT: The increment in the constant radio-frequency current to a resonance probe is determined for the case of a high constant negative potential. A plane probe with a potential $-(V + \varphi_0 \cos \omega t)$ is located at $x = 0$, and a plasma occupies the half-space $x > 0$. The uniform electron distribution function $F(u, x)$, where u is the velocity component along x, is represented as the sum of the Maxwell distribution function $f_0(u)$ and the radio-frequency component $f(u, x)$. The current to the probe is calculated by the Langmuir formula

$$j_0 = -e \int_{-\infty}^{-\Phi(t)} f_0(u)\, u\, du = \frac{enu_0}{\sqrt{2\pi}} \exp(-\Phi^2(t)/2u_0^2),$$

Card 1/2

UDC: 550.388.2

L 06222-67
ACC NR: AP6028356

$$\Phi(t) = \sqrt{2e/m}[V + \varphi_e \cos(\omega t + \theta_e)]^{1/2}, \qquad u_0 = \sqrt{T/m},$$

where φ_e and θ_e are the amplitude and phase of the effective potential. The constant component of the current

$$\langle j_0 \rangle = \frac{1}{\sqrt{2\pi}} enu_0 \exp(-eV/mu_0^2) I_0(e\varphi_e/mu_0^2),$$

where $I_0(\tau)$, is a modified Bessel function. A relationship between the radio-frequency potential and the field on the surface of the probe is established. It is shown that the width of the resonance peak in a collisionless plasma is inversely proportional to the ratio of the probe potential to the plasma temperature, while the resonant frequency is lower than the plasma frequency. The author thanks M. L. Levin for discussion of the results. Orig. art. has: 23 formulas.

SUB CODE: 09/ SUBM DATE: 25Mar65/ ORIG REF: 003/ OTH REF: 008

Card 2/2 LC

L 3172-66 EWT(1)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2 IJP(c) AT

ACCESSION NR: AP5015624 UR/0057/65/035/006/1032/1034
533.9

17
B

AUTHOR: Samokhin, M. V. 44,55

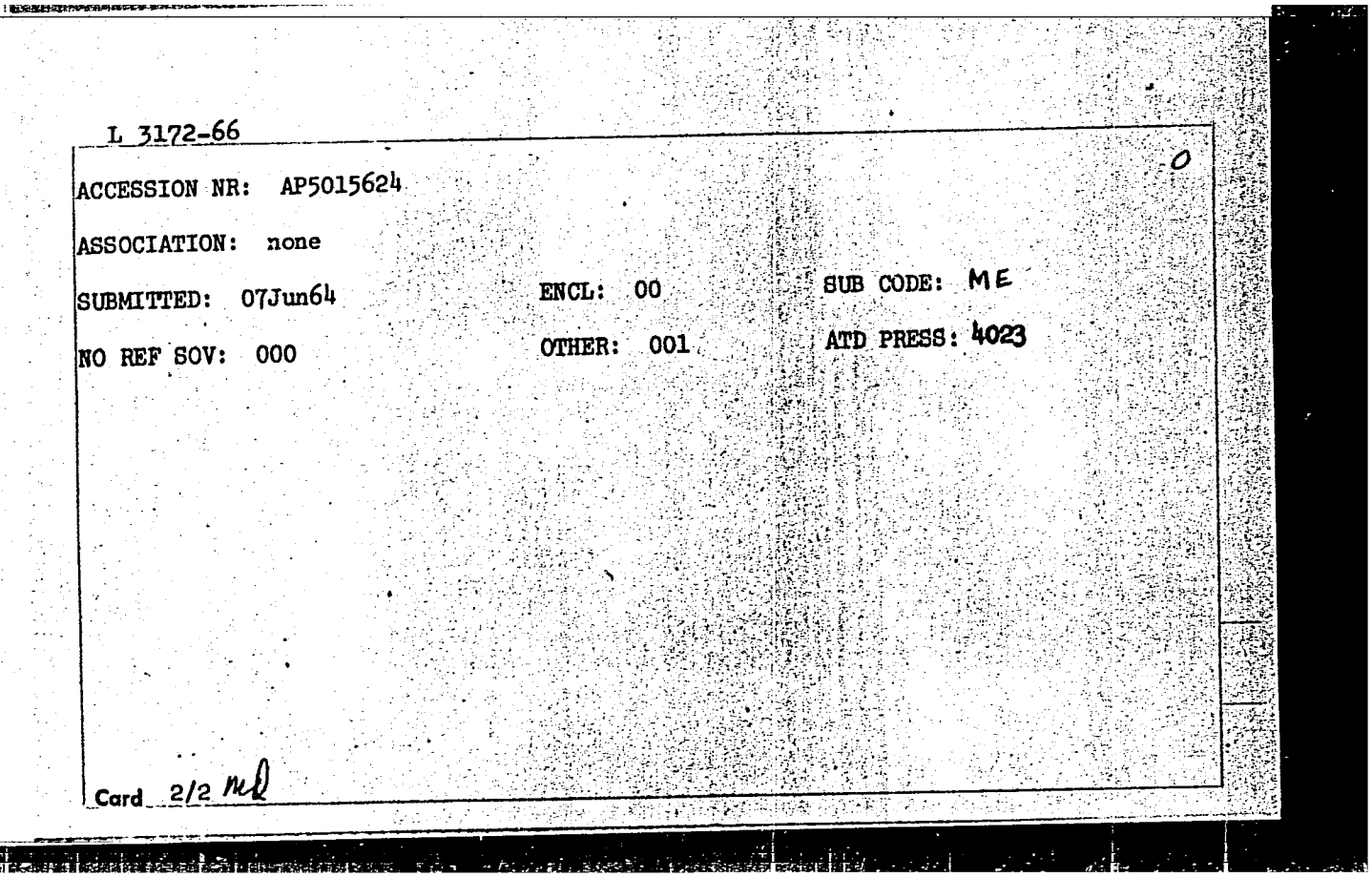
TITLE: Gravity separation of charges in plasma 21,44,55

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 6, 1965, 1032-1034

TOPIC TAGS: charge separation, gravity charge separation, plasma charge separation

ABSTRACT: A numerical solution is given for the problem of the separation of charges in a thermodynamic equilibrium plasma located in a constant field of gravity. The effect of the gravity field on the electrons was taken into account. Under the assumption that the gravity field was centrally symmetric, the electrostatic and gravitational potentials could remain finite in the whole space. Thus, with a sufficiently high plasma temperature it is possible to linearize the barometric formula and to avoid laborious calculations. At a high plasma temperature and small Debye radius a thin layer of the space charge formed close to the gravitational body. This charge decreased exponentially with the distance from the surface of the body. The electrostatic potential approached a value 1/2 Φ_∞, where Φ_∞ is a dimensionless gravity potential at infinity. Orig. art. has: 9 formulas. [JA]

Card 1/2



L 3172-66

ACCESSION NR: AP5015624

ASSOCIATION: none

SUBMITTED: 07Jun64 ENCL: 00 SUB CODE: ME

NO REF SOV: 000 OTHER: 001 ATD PRESS: 4023

Card 2/2 mel

L 7231-66 EWT(d)/EWT(l)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2 IJP(c) AT

ACC NR: AP5025878 SOURCE CODE: UR/0057/65/035/010/1720/1729

AUTHOR: Samokhin, M.V. 44,55

ORG: none

TITLE: On the electrostatic separation of charge in a plasma in thermodynamic equilibrium

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 10, 1965, 1720-1729

TOPIC TAGS: Debye length, plasma charged particle 21,44,55, thermodynamic equilbrium, plane geometry, nonlinear differential equation 16,44,55, mathematic physics

ABSTRACT: The Debye-Hückel problem for a completely ionized isothermal plasma above an infinite charge d plane is treated without the usual linearization of Poisson's equation. For the case of a plasma with singly charged ions the solution is obtained in terms of elementary transcendental functions. Such a solution appears not to be possible for the case of multiply charged ions, and the solution for this case is given as an infinite series. The analogous problem of a plasma between two infinite parallel planes at different potentials is also treated, both for the case of a neutral plasma and for that of a plasma with an excess of electrons or ions. Numerical solutions were computed for a number of special cases and these are presented in graphical and tabular form. There is an appendix in which simple formulas are derived which facilitate the

Card 1/2 UDC: 533.9

L 7731-66 3
ACC NR: AP5025878

expansion in a power series of a function of the form F(f(x)) when the power series expansions of the functions F and f are known. The author thanks M.L.Levin for discussing the results. Orig. art. has: 40 formulas, 5 figures, and 2 tables. 44,55

SUB CODE: ME, MA/ SUBM DATE: 15Apr64/ ORIG REF: 001/ OTH REF: 002

Card 2/2

SAMOKHIN, N., Eng.

Tractors - Motors

Repair of housing for the combustion chamber of the KD-35 tractor. MTS 13, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

SAMOKHIN N.

RADEVICH, P., inzh.-podpolkovnik; SAMOKHIN, N., inzh.-podpolkovnik

New circuits for electric explosive systems. Voen.-inzh.zhur. (MIRA 10:12)
101 no.12:39-42 D '57.
(Explosives, Military)

SAMOKHIN, N. I. AND A. P. LAKSHIN

Liteinye mashiny; katalog-spravochnik. Moskva, Mashgiz, 1948. 197 p. diagrs.

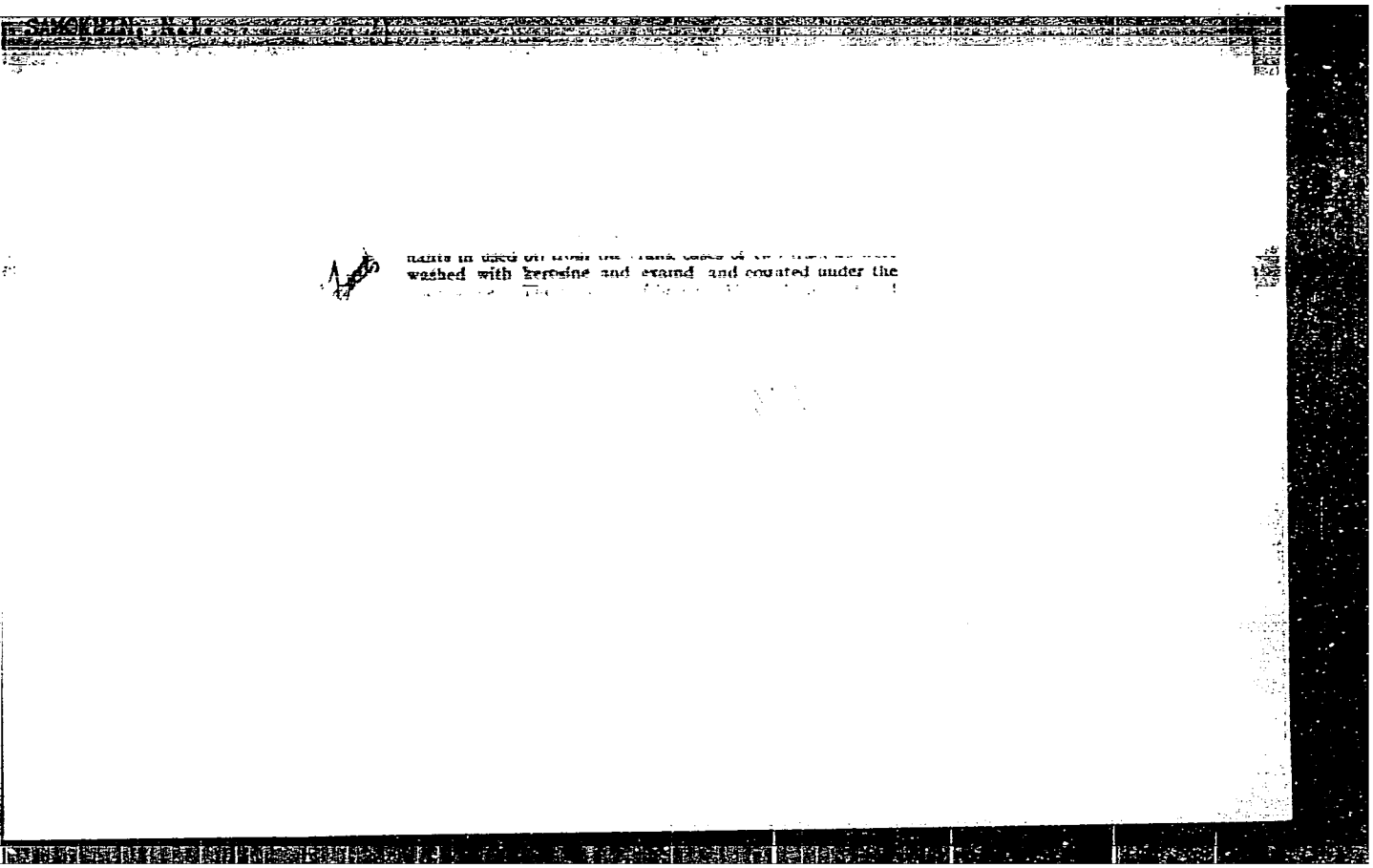
Foundry machines; catalog and handbook.

DLC: TS237.L3

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

VOLODARSKIY A.V.; SAMOKHIN, N.I.; KAMENSKIKH, L.I.

Replacing a hot blast circular air line. Metallurg 10 no.4:8-9 Ap '65. (MIRA 18:7)



washed with kerosine and cleaned and counted under the

SAMOKHIN, N.I.

Cleaning oil in centrifuges. Trakt.i sel'khozmash. 30 no.2:12-14 F '60. (MIRA 13:5)

1. Lipetskiy traktornyy zavod.
(Lubrication and lubricants)

PAVLYUTKIN, Semen Petrovich; SAMOKHIN, N.I., inzh., retsenzent; RABINOVICH, N.M., ekonomist, retsenzent; SALYANSKIY, A.A., red.izd-va; UVAROVA, A.F., tekhn.red.

[Organization and planning in foundries] Organizatsiia i planirovanie v liteinykh tsekhakh. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1962. 232 p. (MIRA 15:2)
(Foundries) (Industrial management)

L 9443-66 EWT(m)/EWP(k)/EWP(z)/EWA(c)/T/EWP(b)/EWA(d)/EWP(v)/EWP(t)
ACC NR: AP5026290 MJW/JD/HM SOURCE CODE: UR/0125/65/000/010/0035/0037

AUTHOR: Shapiro, I. S. (Candidate of technical sciences); Beyder, B. D. (Engineer; Moscow); Vladimirov, V. B. (Engineer; Moscow); Mazo, D. M. (Engineer; Moscow); Samokhin, O. G. (Technician; Moscow)

ORG: VNII avtogenmash

TITLE: Effect of gas-shielded arc cutting on the properties of Kh18N10T steel

SOURCE: Avtomaticheskaya svarka, no. 10, 1965, 35-37

TOPIC TAGS: steel, stainless steel, austenitic steel, chromium containing steel, nickel containing steel, steel cutting, shielded arc cutting, plasma cutting/Kh18N10T steel

ABSTRACT: Hot-rolled Kh18N10T stainless steel plates [0.11% C, 17.6% Cr, 10.7% Ni, 0.75% Ti] were cut by a gas-shielded electric arc in order to investigate the effect of cutting conditions on the structure, corrosion, and weldability. The gas-electric cutting was done under mild conditions (current I = 330—360 amp, arc voltage U_a = 44 v, cutting speed V_c = 270 mm/min, nitrogen consumption Q_{N_2} = 1600 l/hr, cut width d_c = 6 mm) and under severe conditions (I = 400 amp, U_a = 85 v, V_c = 100 mm/min Q_{N_2} = 5000 l/hr, Q_{H_2} = 1600 l/hr, d_c = 4 mm). Regardless of the regime of cutting, the surface of the cut had a thin Fe_3O_4 film which, under optimum cutting conditions, was about 0.6 μm thick. Changes in the structure of the metal cut under mild and

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ACC NR: AP5026290 O

severe conditions extended to a depth of 1.5 and 0.2 mm, respectively. The conditions of cutting had little effect on the rate of general corrosion of the as-cut surface, which was only slightly higher than the rate of 1.5 $g/m^2 \cdot hr$ for mechanically cut specimens. After a sensitizing heat treatment, the rate of general corrosion of mechanically cut specimens increased by 2—6 times, and that of the arc-cut specimens, by 8—10 times. The corrosion rate of the surface of the cut prior to sensitizing was 2—3 times higher, and after sensitizing, 10—13 times higher than that of the base metal. This increase, however, is not dangerous since it does not extend beyond a small fusion zone. Hence, gas-shielded arc cutting of Kh18N10T steel should be done preferably under severe conditions, which ensure a narrow fusion zone. No cut specimens, regardless of the method and conditions of cutting, exhibited intergranular corrosion. Sound welds were obtained by submerged-arc welding of cut specimens without additional preparation, and no difference was observed in the structure of the metal of the weld and heat-affected zone in specimens cut by different methods. Orig. art. has: 4 figures and 1 table. [MS]

SUB CODE: 13/ SUBM DATE: 20Jul64/ ATD PRESS: 4155

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L 28864-66 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6011538 (N) SOURCE CODE: UR/0135/66/000/004/0031/0033

AUTHOR: Shapiro, I. S. (Candidate of technical sciences); Beyder, B. D. (Engineer); Lepp, V. R. (Engineer); Shubin, G. S. (Engineer); Samokhin, O. G. (Technician); Rozhnov, V. S. (Technician)

ORG: none

TITLE: Gas-electric arc cutting of aluminum alloys up to 250 mm thick

SOURCE: Svarochnoye proizvodstvo, no. 4, 1966, 31-33

TOPIC TAGS: metal cutting, metal cutting machine tool, gas cutting, cutting tool, rectilinear cutting machine, rectifier, metal plate cutting apparatus, flame cutting, aluminum alloy, electric arc, hydrogen / PPR-1 cutting tool, OPR-1 cutting tool

ABSTRACT: So far the maximum thickness of aluminum alloys cut industrially by the gas-electric arc method has been 70 mm. Further technical progress dictates the need to enlarge this maximum. In this connection, the authors investigated the possibility of cutting Al alloys up to 250 mm thick by the gas-electric arc method and developing efficient equipment and techniques for this purpose. AN IP-150/250M rectifier developed by the authors was used as the power source for the cutting arc and the cutting was performed with the aid of an PPR-1 semiautomatic rectilinear cutting machine.

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Slabs of the Al alloys AMg6 and D6 and avial-type alloys 70-250 mm thick were cut. A major factor in cutting metal plate is the so-called "piercing time" (time from the instant of ignition of the cutting arc until complete melting of the spot at which the arc is first applied): the shorter the piercing time is, the faster the cutting rate; this involves a certain (optimal) rate of hydrogen consumption for a specified thickness of metal. It was found that the optimal consumption of H_2 increases with increasing thickness of the metal being cut owing to the attendant increase in the length of the cutting arc and hence also in the amount of the hydrogen dissociated. Another factor to be considered is the optimal angle of approach of the electric arc to the line of planned cut and the subsequent rate of advance of the cutting head. Oscillographic studies of the change in cutting-arc voltage following contact with metal showed that then a linear increase in voltage takes place. This made it possible to develope a special servo system functionally -- through feedback -- relating the cutting rate to the arc voltage as based on the use of a cutting head powered by a DC motor whose armature is connected to a power system via an MU magnetic amplifier with self-magnetization and internal positive current feedback, which adjusts the motor RPM to an extent corresponding to the required rate of advance of the cutting head as function of the operation performed at the moment (no load, ignition, approach to planned line of cut, actual cutting). On this basis the OPR-1 plate-metal cutting apparatus for rectilinear as well as profile cutting has been developed; it is equipped with a special extensible panel for remote control of the operations if desired. Orig. art. has: 5 figures, 1 table.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 003

Card 2/2 dc

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Systematization of the elastolytic changes in the pulmonary vessels and the histogenesis of elastogranuloma in rheumatic heart defects. Arkh. pat. 27 no.10:38-44 '65. (MIRA 18:10)

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5(4) S/032/60/026/02/025/057
AUTHORS: Samokhin, V. A., Logunov, L. A. B010/B009

TITLE: Measurement the Electrical Resistivity of Silicon by the Four-probe Method

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol 26, Nr 2, p 185 (USSR)

ABSTRACT: The current two-probe compensation method for measuring the electrical resistivity of silicon is cumbersome. It is difficult to use the four-probe method because of the great instability of the probe contacts. This instability may, however, be eliminated by using tungsten probes and a current generator, or by molding the contacts electrically. An attachment (Fig) which permits the electric molding of contacts using the normal potentiometric circuit is described. The attachment consists of an oscilloscope of type EO-7, a rectifier, and a commutation system. For p-type silicon, duralumin wire probes are used, for n-type silicon, phosphor bronze probes. For measurements without current molding tungsten probes of 0.65 mm thickness are used. For stabilizing the measuring current an electronic current generator is used. Measurement results obtained with the attachment described are

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Measurement the Electrical Resistivity of Silicon by the Four-probe Method

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given (Table). There are 1 figure, 1 table, and 2 references.

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(CEREBRAL CORTEX, physiology
eff. of polarization on stomach motor funct., x-ray (Rus))
(BRAIN, physiology,
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(STOMACH, physiology,
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